

REMARKS

Claim Rejections

Claims 1, 15 and 2, 3, 13, 14 and 16, 17 are rejected under 35 U.S.C. §102(a) as being anticipated by the acknowledge prior art or alternatively under 35 U.S.C. §103(a) as being unpatentable further in view of Chiba (US 5,353,175). Claims 4-12 and 18-23 are rejected under 35 U.S.C. §103(a) as being unpatentable over the art as applied to claim 3 above, and further in view of either JP 2002-083461 or Gulick et al. (US 5,993,057).

Drawings

It is noted that no Patent Drawing Review (Form PTO-948) was received with the outstanding Office Action. Thus, Applicant must assume that the drawings are acceptable as filed.

Claims

1. 35 U.S.C. §102(a) Rejections Based on the Acknowledge Prior Art/ *Park*

Claims 1 and 15 have been rejected under 35 U.S.C. §102(a) as being anticipated by the acknowledge prior art, later issued as US 6,614,740 to *Park* et al. (hereinafter "*Park*"). Applicant respectfully traverses this rejection.

a. Regarding Claim 1

Applicant respectfully submits that independent claim 1 is allowable for the reason that *Park* does not disclose, teach, or suggest the following features: "when the reflected light beam comprises the **address** information, **an address mark signal is generated**" and "when the signal detecting module continuously receives the first header signal and the second header signal, and **also receives the address mark signal** at the same time, then the signal detecting module discriminates that the reflected light beam is reflected from one of the plurality of headers," as recited above in claim 1 of the present invention. Therefore, *Park* does not anticipate claim 1 of the present application.

The Examiner rejected claim 1 by stating, on page 3 of the outstanding Office Action:

Under 102 considerations, the examiner concludes that the address mark signal is inherently present/ generated — due to the slice level condition — applicants attention is further drawn to the description of the acknowledged prior art — US 6614740 starting at col. 4 line 36 till col.9 line 56.

On page 4 of the outstanding Office Action, the Examiner states:

the examiner interprets ***the slice level as providing/meeting the address mark signal***. Since as disclosed in the acknowledged prior art, such a level is set/ established to ensure proper recognition of the address mark signal area. *(emphasis added)*

The arguments set forth in Applicant's prior Response to the Office Action are incorporated herein. Furthermore, Applicant would like to point out the differences between claim 1 and *Park*.

Park's slice level does **not** provide or meet the claimed address mark signal. The signal detecting module in claim 1 determines the header of the optical storage medium based on the reception of the first header signal, the second header signal and, *inter alia*, the *address mark signal*, which is generated "when the reflected light beam comprises the address information." *Park* does not explicitly or inherently teach the address mark signal because nowhere in *Park* suggests that *Park* concern the address information in the optical medium. *Park's* slice level is also different from the claimed address mark signal because *Park's* slice level has nothing to do with the address information in the optical medium. In fact, *Park's* slice level is a "preset" and "fixed" value that is not generated based on any of the address information (col. 2 line 55, col. 9 line 18, FIG 4 and FIG 7). Even assume, for the argument purpose, that "the address mark signal is inherently present/generated" in *Park*, as indicated by the Examiner, nowhere in *Park* suggests that *Park* uses an address mark signal together with other signals to determine the header of the optical medium.

The inclusion of an address mark signal in determining the header of an optical storage medium in Claim 1 distinguishes itself with *Park's* failure to do so. Therefore, *Park* still suffers from the potential problem of incorrect discrimination or determination of the header. As explained by Applicant, on page 3, lines 6-11 of the specification:

The prior art *merely* takes the header indication signal CP1 or CP2 to be the signal for identifying the header. . . . Therefore, the prior art is often *unable* to identify the header correctly, making discriminating error. (*emphasis added*)

Therefore, claim 1 of the present invention is substantially different from *Park* for the reasons detailed above and is not anticipated by *Park*.

b. Regarding Claim 15

Applicant respectfully submits that independent claim 15 is allowable for the reason that *Park* does not disclose, teach, or suggest the following features: "when the reflected light beam comprises the **address** information, **generating an address mark signal** " and "when continuously receiving the first header signal and the second header signal, and **also receiving the address mark signal** at the same time, then discriminating that the reflected light beam is reflected from one of the headers," as recited above in claim 15 of the present invention. Therefore, *Park* does not anticipate claim 15 of the present application.

The Examiner rejects claim 15 with a similar reasoning as applied to claim 1. Applicant respectfully disagrees. The arguments set forth in Applicant's prior Response to the Office Action are incorporated herein. Furthermore, Applicant would like to point out the differences between claim 15 and *Park*.

Park's slice level does *not* provide or meet the claimed address mark signal. The header of the optical storage medium in claim 15 is determined based on the reception of the first header signal, the second header signal and, *inter alia*, the **address mark signal**, which is generated "when the reflected light beam comprises the address information." *Park* does not explicitly or inherently teach the address mark signal because nowhere in *Park* suggests that *Park* concern the address information in the optical medium. *Park's* slice level is also different from the claimed

address mark signal because *Park's* slice level has nothing to do with the address information in the optical medium. In fact, *Park's* slice level is a "preset" and "fixed" value that is not generated based on any of the address information (col. 2 line 55, col. 9 line 18, FIG 4 and FIG 7). Even assume, for the argument purpose, that "the address mark signal is inherently present/generated" in *Park*, nowhere in *Park* suggests that *Park* uses an address mark signal together with other signals to determine the header of the optical medium.

It is axiomatic in U.S. patent law that, in order for a reference to anticipate a claimed structure, it must clearly disclose each and every feature of the claimed structure. Applicant submits that it is abundantly clear, as discussed above, that *Park* does not disclose each and every feature of claims 1 and/or 15, therefore, could not possibly anticipate these claims under 35 U.S.C. § 102. Absent a specific showing of these features, *Park* cannot be said to anticipate claims 1 and/or 15 under 35 U.S.C. § 102.

2. 35 U.S.C. §103(a) rejections based on *Park* and *Chiba*

The Examiner rejected claims 1 and 15 by stating, on page 3 of the outstanding Office Action:

It would have been obvious to modify the base system of *Park et al*/ the acknowledged prior art with the teaching from *Chiba*, motivation is to ***use the address mark signal in lieu of the slice level value in order to detect the address marks.*** (*Emphasis added*)

The Examiner stated, on page 4 of the outstanding Office Action:

as further described by *Chiba*, the address mark is present in this environment prior to the header signals — to indicate the presence of the header signals. Furthermore, such signals must be read continuously else the header region/signals would not be read.

Applicant respectfully submits that it would ***not*** have been obvious to skilled artisan to modify *Park's* base system with *Chiba's* teaching because there is ***no reasonable expectation of success*** to use *Chiba's* address mark signal in lieu of

Park's slice level value in order to detect the address marks in *Park's* base system. Applicant submits three reasons in the following.

First, contrary to the Examiner's suggestion, there is **no** address marks to be detected in *Park's* base system because *Park's* **optical** recording medium is different in data specification and arrangement from *Chiba's* **magnetic** disc recording medium. Unlike *Chiba's* recording medium, *Park's* recording medium has no address marks thereon and therefore no address marks to be detected. According to *Chiba's* disclosure, *Chiba's* "invention relates generally to . . . a **magnetic** disc recording medium" (*Chiba's* col. 1, lines 10-15; BACKGROUND OF THE INVENTION). As seen from *Chiba's* FIG. 1 and/or FIG. 4, the data specification of the header (HD1) in *Chiba's* magnetic disc recording medium is constituted, in relevant parts, by a sector mark M, an address mark AM1, an address information data AD1, an address mark AM2, an address information data AD2. That is, in *Chiba's* magnetic disc recording medium, there are pre-embedded address marks AM1 and AM2 designed to be readily detected to indicate the "head position[s]" of the address information data AD1 and AD2 (*Chiba's* col. 1, lines 31-37). The Office also acknowledges such a unique data arrangement in *Chiba's* magnetic disc recording medium ("as further described by Chiba, the address mark is present in this environment prior to the header signals — to indicate the presence of the header signals," Office Action, Page 4). However, no such address mark exists to indicate the presence of the header in *Park's* medium.

The combination of *Park* and *Chiba* is thus not obvious and in fact unreasonable in light of their two totally different data specification and arrangement. According to *Park's* disclosure, *Park's* "invention relates generally to an **optical** recording medium," which has a data specification and arrangement totally different from *Chiba's* **magnetic** recording medium (*Park's* col. 1, lines 5-9; BACKGROUND OF THE INVENTION). Therefore, the Office's suggestion "to modify the base system of *Park* . . . in order to detect the address marks" seems to rest on a misunderstanding of *Park's* disclosure (Office Action, Page 3).

Second, contrary to the Office's suggestion, there is **no need** (and consequently **no motivation**) to detect any address marks or address information in *Park's* base system. This is so even if, assuming for argument's purpose, there

are address marks in *Park's* recording medium (or treat the address information implicitly in *Park's* recording medium as the address marks). *Park* discloses to use "a read channel 1 signal" "for detecting a header region" (*Park's* col. 4, lines 43-44; SUMMARY OF THE INVENTION). *Park* also discloses to use "a read channel 1 signal and a read channel 2 signal . . . to produce header mask signals" (*Park's* col. 4, lines 47-49; SUMMARY OF THE INVENTION). Apparently, *no* address marks or address information is required or involved to detect a header region or to produce header mask signals in *Park's* base system. Since there is no need and consequently no motivation to detect any address marks or address information in *Park's* base system, skilled artisans would not have been motivated to combine *Chiba's* address mark signal to replace *Park's* slice level value in order to detect the address marks, which do not even seem to exist in *Park's* base system.

Third, even if, assuming for argument's purpose, skilled artisans would have been motivated to combine *Chiba's* address mark signal to replace *Park's* slice level value in order to detect the address marks, as suggested by the Office, *Park's* base system would *not* function normally as designed after such a combination. According to *Park*, the slice level is a "preset" and "fixed" value that is used to slice the read channel 1 signal or the read channel 2 signal. For example, reference of such slice level can be viewed in the **horizontal dash line** in *Park's* FIG. 6A and FIG. 6B ("FIG. 6A illustrates a read channel 2 signal detected from a data writable sector and a header region which informs a sector position, and FIG. 6B illustrates a TZC signal produced by **slicing** the read channel 2 signal . . .," col. 3, lines 47-50).

Chiba's address mark signal, on the other hand, is *not* suitable for serving as the sliced level since it is neither a "preset" value nor a "fixed" value. As discussed before, to serve as a slicing function, *Park* discloses the sliced level to be a fixed value. Apparently, *Chiba's* address mark signal, as shown by any of the detection signal A, B, C, D, or E in FIG. 4, is a dynamic signal instead of a fixed value as required by *Park*. The replacement of *Park's* fixed slice level value by any of *Chiba's* dynamic address mark signals would only result in an erroneous detection of the header region or an erroneous production of the header mask signals in *Park's* base system. Therefore, it would *not* have been obvious to skilled

artisans to modify *Park's* base system with *Chiba's* teaching because there is ***no reasonable expectation of success*** for such a combination.

It is therefore believed that the cited prior art references do not make obvious claims 1 and/or 15. Reconsideration of the rejections of claims 1 and 15 is hereby requested.

3. 35 U.S.C. §103(a) rejections of other dependent claims

Applicant submits that features, discussed above, distinguishing claims 1 and 15 of the present invention from the cited prior arts are not taught by either *Park*, JP 2002-083461, or *Gulick et al.*, and believes that dependent claims 2-14 and 16-23 are also allowable.

Neither *Park*, *Chiba*, JP 2002-083461, nor *Gulick et al.* disclose, or suggest a modification of their specifically disclosed structures that would lead one having ordinary skill in the art to arrive at Applicant's claimed structure. Applicant hereby respectfully submits that no combination of the cited prior art renders obvious Applicant's claims.

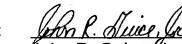
Summary

In view of the foregoing amendments and remarks, Applicant submits that this application is now in condition for allowance and such action is respectfully requested. Should any points remain in issue, which the Examiner feels could best be resolved by either a personal or a telephone interview, it is urged that Applicant's local attorney be contacted at the exchange listed below.

Respectfully submitted,

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By: _____


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